AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A process of removing crystallization inhibitors from a solution comprising ~~one or more~~ at least one reducing monosaccharide sugar ~~sugars and/or~~ or corresponding sugar ~~alcohols~~alcohol thereof, followed by crystallization of said reducing monosaccharide sugar or corresponding sugar alcohol thereof, comprising

subjecting said solution to one or more purification steps selected from nanofiltration and optionally hydrolysis and chromatography, whereby said reducing monosaccharide sugar ~~and/or~~ or corresponding sugar alcohol thereof is recovered in the nanofiltration permeate and said crystallization inhibitors are recovered in the nanofiltration retentate,

subjecting said nanofiltration permeate containing said reducing monosaccharide sugar or corresponding sugar alcohol thereof to a crystallization process selected from the group consisting of boiling crystallization, cooling crystallization, precipitation crystallization, and a combination thereof, to produce crystals of said monosaccharide sugar or corresponding sugar alcohol thereof, and

collecting the crystals by centrifugation or filtering.

2. (Previously Presented) A process as claimed in claim 1, wherein said reducing sugar is xylose.

3. (Previously Presented) A process as claimed in claim 1, wherein said reducing sugar is fructose.

4. (Currently Amended) A process as claimed in claim 1, wherein said crystallization inhibitor is selected from compounds which have a larger molar mass than said reducing sugar or the corresponding sugar alcohol thereof.

5. (Previously Presented) A process as claimed in claim 4, wherein said crystallization inhibitor is selected from compounds which in their molecule include at least one monosaccharide or corresponding unit more than said reducing sugar or the corresponding sugar alcohol thereof.

6. (Previously Presented) A process as claimed in claim 4, wherein said crystallization inhibitor is selected from dimeric and/or oligomeric compounds.

7. (Previously Presented) A process as claimed in claim 6, wherein said dimeric and/or oligomeric compounds are selected from dimeric and/or oligomeric forms of said reducing sugar and/or the corresponding sugar alcohol thereof.

8. (Previously Presented) A process as claimed in claim 2, wherein said crystallization inhibitor is selected from xylobiose, xylotriose and xylo-oligosaccharides.

9. (Previously Presented) A process as claimed in claim 3, wherein said crystallization inhibitor is selected from difructose anhydrides, fructose dianhydrides, diheterolevosanes and diheterolevulosans.

10. (Previously Presented) A process as claimed in claim 1, wherein the nanofiltration is carried out at a pressure of 10 to 50 bar.

11. (Previously Presented) A process as claimed in claim 1, wherein the nanofiltration is carried out at a temperature of 5 to 95°C.

12. (Previously Presented) A process as claimed in claim 1, wherein the nanofiltration is carried out with a flux of 5 to 100 liters/m^2h.

13. (Previously Presented) A process as claimed in claim 1, wherein the nanofiltration is carried out using a nanofiltration membrane selected from polymeric and inorganic membranes having a cut-off size of 100 to 2500 g/mol.

14. (Previously Presented) A process as claimed in claim 13, wherein the cut-off size of the nanofiltration membrane is 150 to 1000 g/mol.

15. (Previously Presented) A process as claimed in claim 14, wherein the cut-off size of the nanofiltration membrane is 150 to 500 g/mol.

16. (Currently Amended) A process as claimed in claim 13, wherein the nanofiltration membrane is selected from ionic membranes.

17. (Previously Presented) A process as claimed in claim 13, wherein the nanofiltration membrane is selected from hydrophobic and hydrophilic membranes.

18. (Previously Presented) A process as claimed in claim 13, wherein the nanofiltration membrane is selected from cellulose acetate membranes, polyethersulfone membranes, sulfonated polyether sulphone membranes, polyester membranes, polysulfone membranes, aromatic polyamide membranes, polyvinyl alcohol membranes and polypiperazine membranes and combinations thereof.

19. (Previously Presented) A process as claimed in claim 18, wherein the nanofiltration membrane is selected from sulfonated polyether sulfone membranes and polypiperazine membranes.

20. (Currently Amended) A process as claimed in claim 18, wherein the nanofiltration membrane is selected from the group consisting of ~~NF-200, Desal-5 DL, Desal-5 DK, Desal-G10 and NTR-7450 membranes.~~

a polypiperazine membrane having a cut-off size of 200 g/mol, permeability (25°C) of 7 to 8 l/(m^2h bar) and NaCl-retention of 70%,

a four-layered membrane consisting of a polyester layer, a polysulfone layer and two proprietary layers, having a cut-off size of 150 to 300 g/mol, permeability (25°C) of 7.6 l/m^2h bar) and $MgSO_4$-retention of 96% (2 g/l),

a four-layered membrane consisting of a polyester layer, a polysulfone layer and two proprietary layers, having a cut-off size of 150 to 300 g/mol, permeability (25 °C) of 5.4 l/(m^2h bar) and $MgSO_4$-retention of 98% (2 g/l),

a thin film membrane of aromatic polyamide/polysulfone material having a cut-off size of 2500 g/mol, permeability (25°C) of 3.4 l/(m^2h bar), NaCl-retention of 10%, retention of dextrane (1500 g/ml) of 95% and retention of glucose of 50%, and

a sulfonated polyethersulfone membrane having a cut-off size of 500 to 1000 g/mol, permeability (25°C) of 9.4 l/(m^2h bar) and NaCl-retention of 51% (51 g/l).

21. (Previously Presented) A process as claimed in claim 13, wherein the form of the nanofiltration membrane is selected from sheets, tubes, spiral membranes and hollow fibers.

22. (Canceled)

23. (Previously Presented) A process as claimed in claim 1, wherein the nanofiltration process is repeated at least once.

24. (Previously Presented) A process as claimed in claim 1, wherein said purification steps further comprise hydrolysis.

25. (Previously Presented) A process as claimed in claim 24, wherein said hydrolysis comprises enzymatic hydrolysis.

26. (Previously Presented) A process as claimed in claim 24, wherein said hydrolysis comprises acid hydrolysis.

27. (Previously Presented) A process as claimed in claim 1, wherein said purification steps further comprise chromatographic separation.

28. (Previously Presented) A process as claimed in claim 27, wherein said chromatographic separation is carried out using a column packing material selected from cation exchange resins and anion exchange resins.

29. (Previously Presented) A process as claimed in claim 28, wherein said cation exchange resins are selected from strongly acid cation exchange resins and weakly acid cation exchange resins.

30. (Previously Presented) A process as claimed in claim 28, wherein said resin is in a monovalent metal form or a divalent metal form.

31. (Previously Presented) A process as claimed in claim 28, wherein the resin has a styrene skeleton or acrylic skeleton.

32. (Currently Amended) A process as claimed in claim 1, wherein said solution comprising ~~one or more~~ at least one reducing monosaccharide sugar ~~sugars and/or~~or corresponding sugar ~~alcohols~~ alcohol thereof is a biomass hydrolysate.

33. (Currently Amended) A process as claimed in claim 1, wherein said solution comprising ~~one or more~~ at least one reducing monosaccharide sugar ~~sugars and/or~~or corresponding sugar ~~alcohols~~ alcohol thereof is a fraction enriched in said reducing sugar ~~and/or~~or sugar alcohol and obtained from the separation of said reducing sugar ~~and/or~~or sugar alcohol.

34. (Currently Amended) A process as claimed in claim 33, wherein said solution comprising ~~one or more~~ at least one reducing monosaccharide sugar ~~sugars and/or~~or corresponding sugar ~~alcohols~~ alcohol thereof is obtained from the chromatographic separation of said reducing sugar ~~and/or~~or sugar alcohol.

35. (Currently Amended) A process as claimed in claim 1, wherein said solution comprising ~~one or more~~ at least one reducing monosaccharide sugar ~~sugars and/or~~or corresponding sugar

alcohols thereof is a mother liquor obtained from the crystallization of said reducing sugar ~~and/or~~ or sugar alcohol.

36. (Previously Presented) A process as claimed in claim 2, wherein said solution comprising xylose is a spent liquor obtained from a pulping process.

37. (Previously Presented) A process as claimed in claim 2, wherein said solution comprising xylose is a xylose fraction obtained from the chromatographic separation of xylose from a spent liquor obtained from a pulping process.

38. (Previously Presented) A process as claimed in claim 2, wherein said solution comprising xylose is a mother liquor obtained from the crystallization of xylose.

39. (Previously Presented) A process as claimed in claim 3, wherein said solution comprising fructose is a fructose solution obtained from the hydrolysis of starch.

40. (Previously Presented) A process as claimed in claim 3, wherein said solution comprising fructose is a fructose solution obtained from hydrolyzed and isomerized saccharose.

41. (Currently Amended) A process as claimed in claim 3, wherein said solution comprising fructose is a fructose fraction obtained from the separation of fructose from a fructose solution, wherein said fructose solution is obtained from the hydrolysis of starch and/or isomerisation of saccharose.

42. (Currently Amended) A process as claimed in claim 41, wherein said solution comprising fructose is a fructose fraction obtained from the chromatographic separation of fructose from a solution, wherein said fructose solution is obtained from the hydrolysis of starch and/or isomerisation of saccharose.

43. (Previously Presented) A process as claimed in claim 3, wherein said solution comprising fructose is a mother liquor obtained from the crystallization of fructose.

44. (Currently Amended) A process as claimed in claim 10, wherein the ~~nanofiltation~~ nanofiltration is carried out at a pressure of 15 to 40 bar.

45. (Previously Presented) A process as claimed in claim 11, wherein the nanofiltration is carried out at a temperature of 30 to 60°C